

REMARKS

Status of the Claims

Claims 15-19 are pending.

Claims 15, 17-19 have been rejected.

Claim 16 was objected to.

By this response, please **amend** claim 15.

Rejections by the Examiner

The Examiner rejected claims 15, 17-19 under 35USC103(a) as being unpatentable over Chen et al. in view of Nakao.

The Examiner stated “Regarding claim 15, Chen et al teaches an MRAM device comprising a sense line 28, a pinned layer 26, a barrier layer 16 between the sense and pinned layers, a pinning layer 24 aligned with the pinned layer, and a magnetic sink 20 in electromagnetic communication with the device which modifies the magnetic field effects at the boundaries of a word line, pinned layer, and pinning line. Chen et al. teaches a memory device but does not discuss a plurality of line or a pinning layer perpendicular to the sense lines. Nakao teaches an MRAM device with a plurality of lines where the pinning layer is perpendicular to the sense lines. It would have been obvious to one of ordinary skill in the art to use the MRAM configuration of Nakao in the device of Chen et al. since Nakao teaches that this configuration provides a simple construction which is suitable for high-density devices.

Amended claim 15 includes the following features:

a plurality of sense lines;

a plurality of pinned layers, one for each of the magnetic memory devices within the array;

a plurality of barrier layers, one placed between a sense layer and each pinned layer;

a plurality of pinning layers running generally perpendicular to the plurality of sense lines and at least partially aligned with a portion of the pinned layer; and

at least one magnetic sink, the magnetic sink layer extending beyond the other layers, placed in electro-magnetic communication with at least one of the magnetic memory devices within an array, to modify magnetic field effects at the boundaries of the word line, a pinned layer, and a pinning line associated with the at least one magnetic memory device.

(Emphasis Added)

Claim Rejections Under 35 USC 103(a)

It is respectfully noted that to substantiate a *prima facie* case of obviousness the initial burden rests with the Examiner who must fulfill three requirements.

More specifically:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the

prior art, and not based on applicant's disclosure. MPEP Sec. 2143, *In re vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner rejected claims under 35USC103(a) as

Paralleling the MPEP references cited above, the Federal Circuit has enunciated several guidelines in making a 35USC103 obviousness determination. A prima facie case of obviousness is established when and only **when the teachings from the prior art itself** would appear to have **suggested** the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 783, 26 U.S.P.Q.2d 1529, 1531 (Fed Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051 (C.C.P.A. 1976)). (Emphasis added). "The mere fact that the prior art **may** be modified in the manner suggested by the Examiner does **not** make the modification obvious unless the prior art suggested the desirability of the modification." (Emphasis added) *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

Amended claim 15 includes the feature of the magnetic sink layer extending beyond the other layers. Support for this amendment can be found in Figures 2, 3, 4, 5, 6, 7 and 8. Support can also be found in the specification on page 6, lines 20-29.

As shown Figures 1, 2 of Chen, the magnetic sink 20 of Chen does not extend beyond the other layers. Nothing in Chen or Nakao suggests this additional feature, or the advantages this feature provides. Chen and Nakao in combination do not teach this feature. Therefore, claim 15 is patentable over the cited prior art.

Claims 16-19 are indirectly or directly dependent on claim 15. Therefore, claims 16-19 are patentable over the cited prior art.

No new matter has been added by these amendments.

The applicants respectfully request reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
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